OIPE
IAP19
JUN 05 2006
PATENT & TRADEMARK OFFICE

FIGURE 1

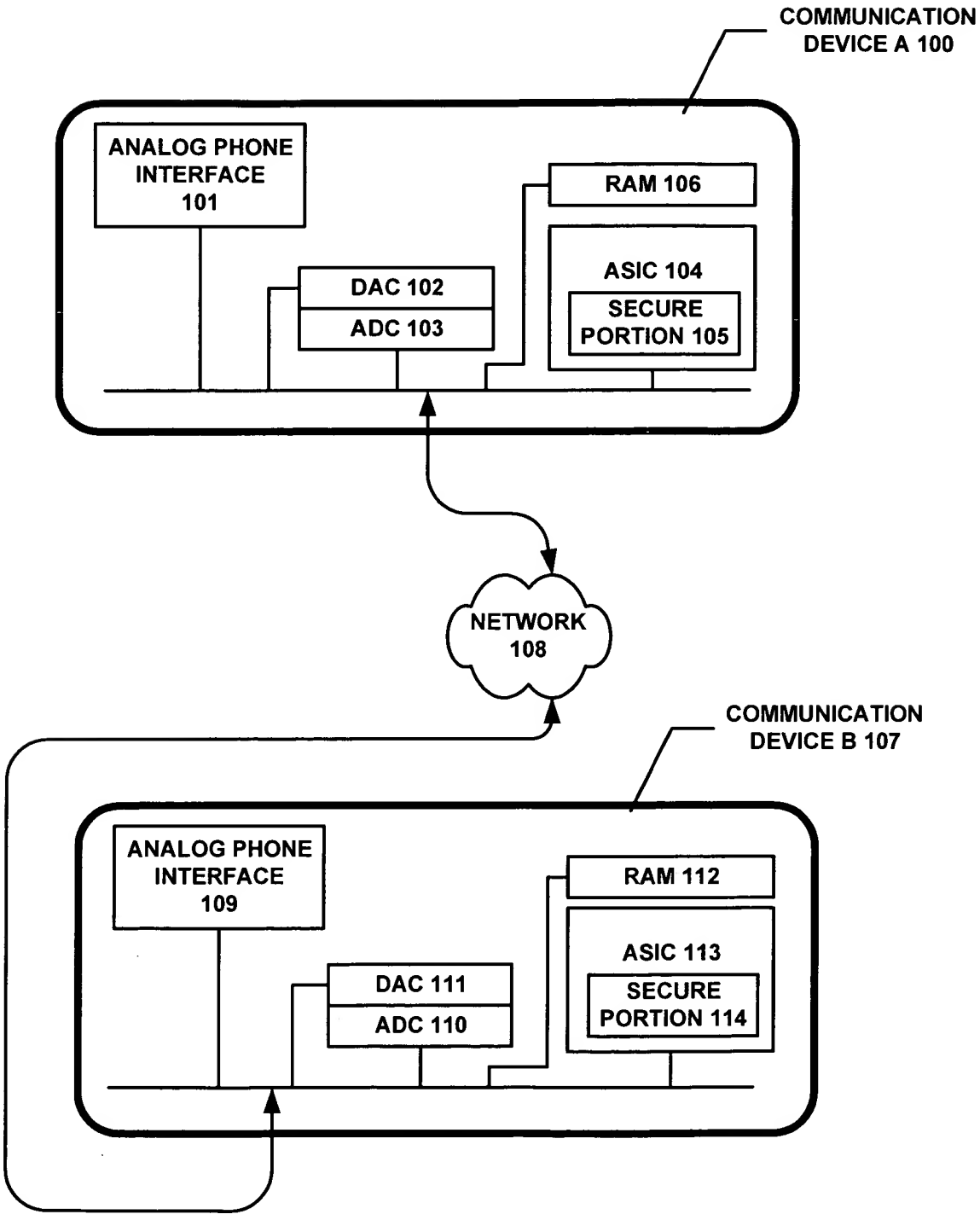


FIGURE 2

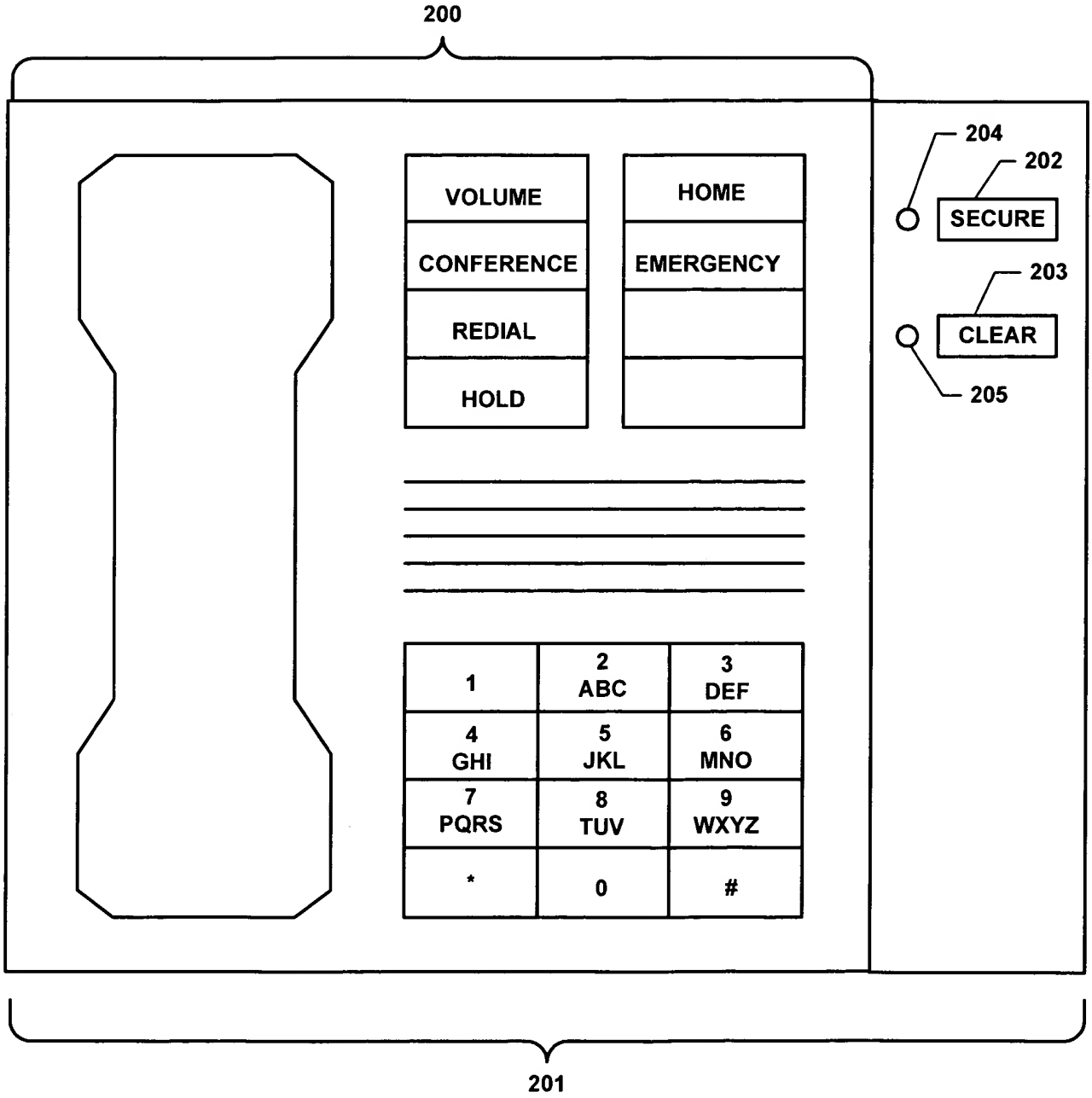

200
VOLUME
HOME
CONFERENCE
EMERGENCY
REDIAL
HOLD
204
202
SECURE
203
CLEAR
205
1
2 ABC
3 DEF
4 GHI
5 JKL
6 MNO
7 PQRS
8 TUV
9 WXYZ
*
0
#
201

FIGURE 3

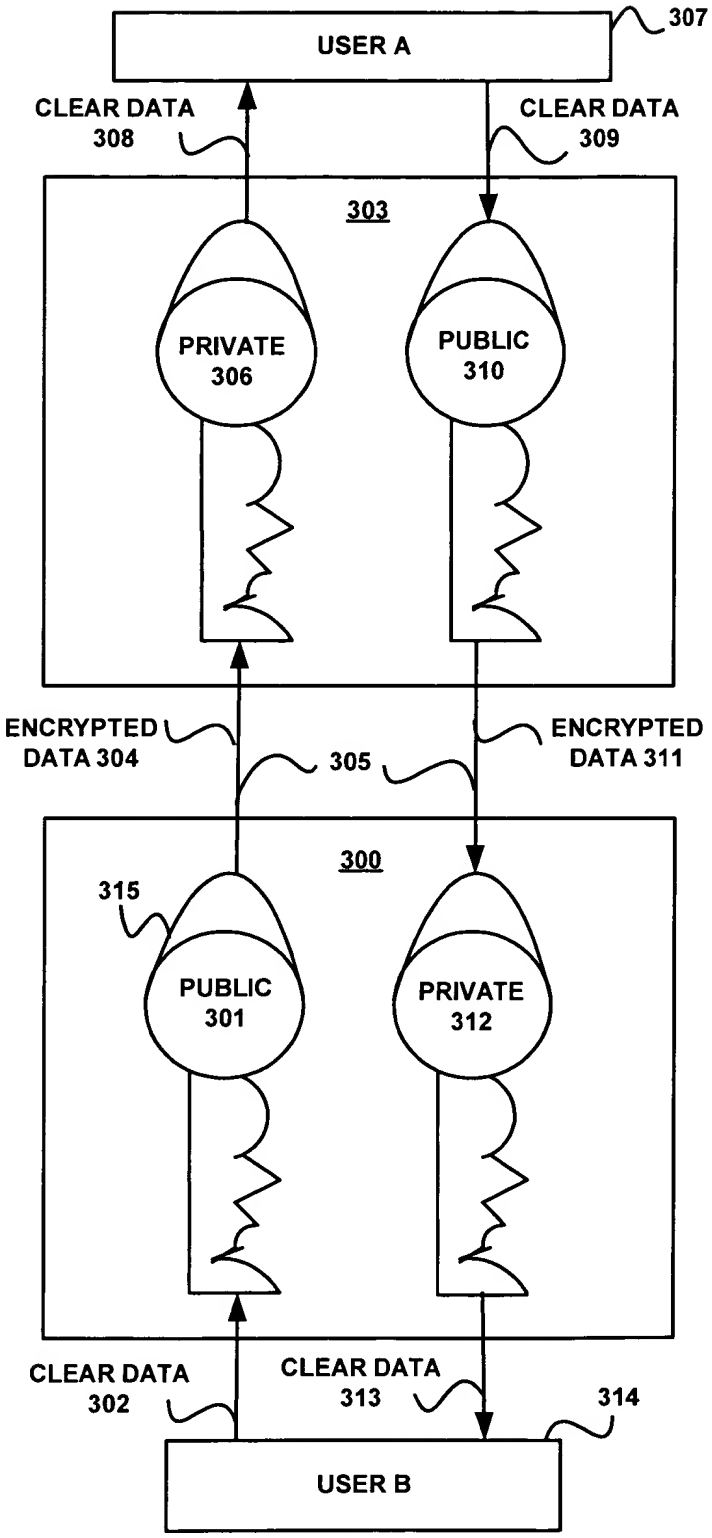

USER A
307
CLEAR DATA
308
CLEAR DATA
309
303
PRIVATE
306
PUBLIC
310
ENCRYPTED
DATA 304
305
ENCRYPTED
DATA 311
300
315
PUBLIC
301
PRIVATE
312
CLEAR DATA
302
CLEAR DATA
313
314
USER B

FIGURE 4

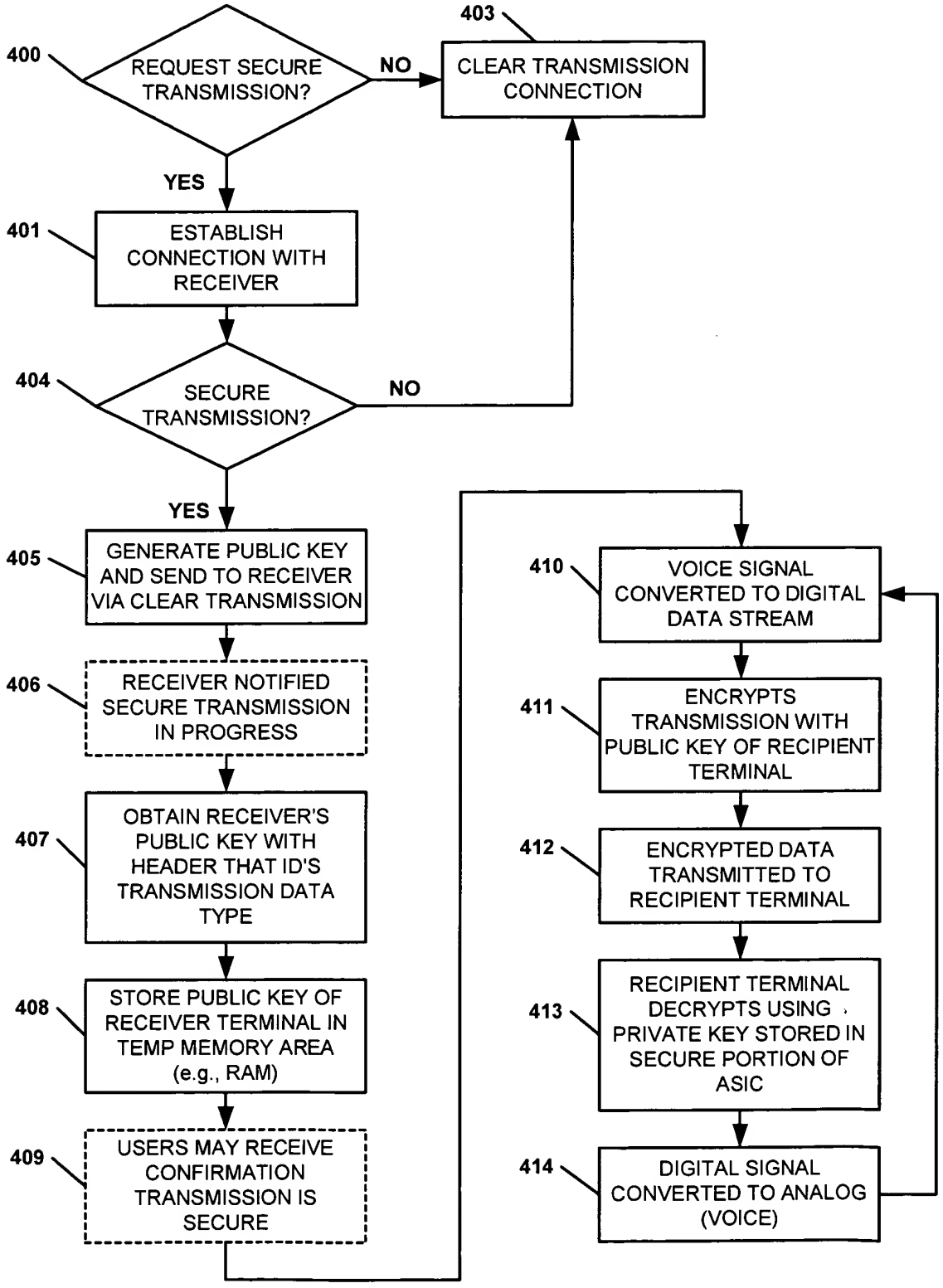
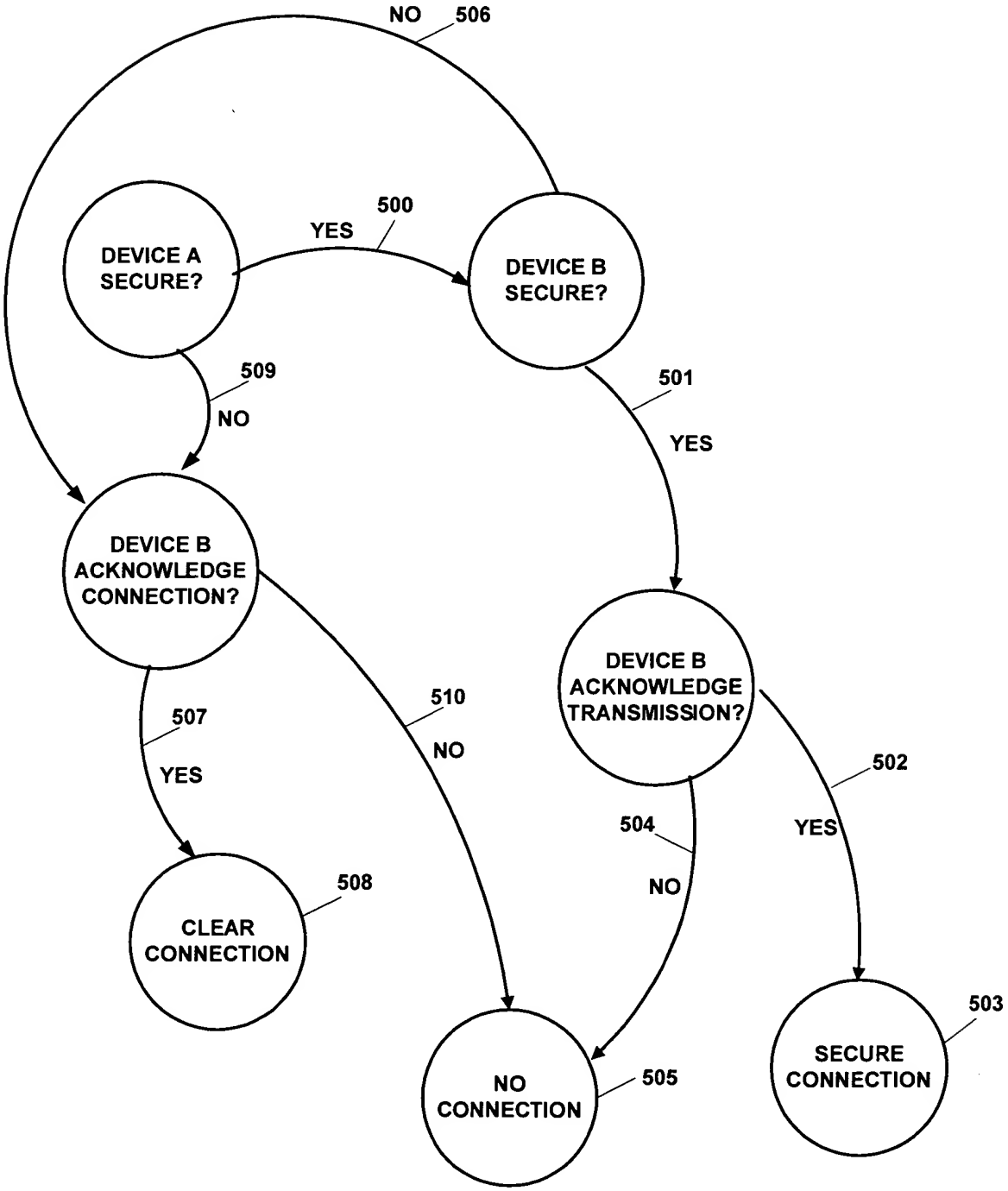

400
REQUEST SECURE TRANSMISSION?
NO
403
CLEAR TRANSMISSION CONNECTION
YES
401
ESTABLISH CONNECTION WITH RECEIVER
404
SECURE TRANSMISSION?
NO
YES
405
GENERATE PUBLIC KEY AND SEND TO RECEIVER VIA CLEAR TRANSMISSION
406
RECEIVER NOTIFIED SECURE TRANSMISSION IN PROGRESS
407
OBTAIN RECEIVER'S PUBLIC KEY WITH HEADER THAT ID'S TRANSMISSION DATA TYPE
408
STORE PUBLIC KEY OF RECEIVER TERMINAL IN TEMP MEMORY AREA (e.g., RAM)
409
USERS MAY RECEIVE CONFIRMATION TRANSMISSION IS SECURE
410
VOICE SIGNAL CONVERTED TO DIGITAL DATA STREAM
411
ENCRYPTS TRANSMISSION WITH PUBLIC KEY OF RECIPIENT TERMINAL
412
ENCRYPTED DATA TRANSMITTED TO RECIPIENT TERMINAL
413
RECIPIENT TERMINAL DECRYPTS USING PRIVATE KEY STORED IN SECURE PORTION OF ASIC
414
DIGITAL SIGNAL CONVERTED TO ANALOG (VOICE)

FIGURE 5


NO
506
DEVICE A SECURE?
YES
500
DEVICE B SECURE?
509
NO
501
YES
DEVICE B ACKNOWLEDGE CONNECTION?
DEVICE B ACKNOWLEDGE TRANSMISSION?
507
YES
510
NO
502
YES
504
NO
CLEAR CONNECTION
508
NO CONNECTION
505
SECURE CONNECTION
503